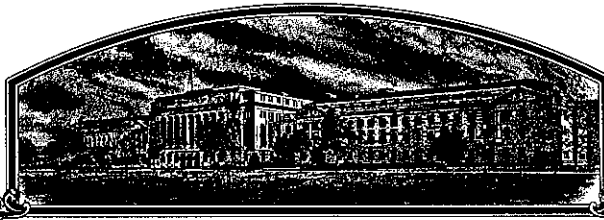


No.

8700011



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Pioneer Hi-Bred International, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE
Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (AT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT

'2555'



In Testimony Whereof, I have hereunto set
my hand and caused the seal of the Plant
Variety Protection Office to be affixed
at the City of Washington, D. C.
this 29th day of July in
the year of our Lord one thousand nine
hundred and eighty-eight.

Attest:

Kenneth H. Evans
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Richard E. Lyng
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

FORM APPROVED: OMB NO. 0581-0055

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) Pioneer Hi-Bred International, Inc. Plant Breeding Division Dept. of Cereal Seed Breeding		2. TEMPORARY DESIGNATION W1060B		3. VARIETY NAME 2555	
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) P.O. Box 426 Windfall, Indiana 46076		5. PHONE (Include area code) (317) 945-7906		FOR OFFICIAL USE ONLY PVPO NUMBER 8700011	
6. GENUS AND SPECIES NAME <i>Triticum aestivum</i>		7. FAMILY NAME (Botanical) gramineae		FILING DATE October 23, 1986 TIME 1:00 <input type="checkbox"/> A.M. <input checked="" type="checkbox"/> P.M.	
8. KIND NAME Wheat		9. DATE OF DETERMINATION June 15, 1983		FEE RECEIVED AMOUNT FOR FILING \$ 1800.00 DATE October 15, 1986 AMOUNT FOR CERTIFICATE \$ 200.00 DATE June 20, 1988	
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) Corporation				12. DATE OF INCORPORATION May, 1926	
11. IF INCORPORATED, GIVE STATE OF INCORPORATION Iowa					
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS Dr. Mark Iwig Pioneer Hi-Bred International, Inc. P.O. Box 426 Windfall, Indiana 46076 PHONE (Include area code): (317) 945-7906					
14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED					
a. <input checked="" type="checkbox"/> Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)					
b. <input checked="" type="checkbox"/> Exhibit B, Novelty Statement.					
c. <input checked="" type="checkbox"/> Exhibit C, Objective Description of Variety (Request form from Plant Variety Protection Office.)					
d. <input checked="" type="checkbox"/> Exhibit D, Additional Description of Variety.					
e. <input checked="" type="checkbox"/> Exhibit E, Statement of the Basis of Applicant's Ownership.					
15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act.) <input type="checkbox"/> Yes (If "Yes," answer items 16 and 17 below) <input checked="" type="checkbox"/> No					
16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> Yes <input type="checkbox"/> No			17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? <input type="checkbox"/> Foundation <input type="checkbox"/> Registered <input type="checkbox"/> Certified		
18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.? <input type="checkbox"/> Yes (If "Yes," give date) <input checked="" type="checkbox"/> No					
19. HAS THE VARIETY BEEN RELEASED, OFFERED FOR SALE, OR MARKETING IN THE U.S. OR OTHER COUNTRIES? <input type="checkbox"/> Yes (If "Yes," give names of countries and dates) <input checked="" type="checkbox"/> No					
20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable. The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.					
SIGNATURE OF APPLICANT Mark M. Iwig				DATE 10/13/86	
SIGNATURE OF APPLICANT				DATE 1	

14A. Exhibit A. Origin and Breeding History of Pioneer Wheat Cultivar 2555

Pioneer cultivar 2555, Triticum aestivum L., em Thell., a soft red winter wheat was developed by Pioneer Hi-Bred International, Inc., from the single cross Pioneer line W3017/Pioneer line W521. Pioneer line W3017 was an F2 selection from the cross: Coker 68-16/3/Kawvale, CI08180/Vigo, CI12220//Directour Journoc. The pedigree of Coker 68-16 is Purdue 4946A4-18-2-10-1/Hadden, CI13488. Pioneer cultivar 2553 resulted from an F5 reselection of Pioneer line W3017. The exact parentage of Pioneer line W521 is not known. W521 was selected from the cross CIMMYT line/soft red winter line//soft red winter line. The identities of the three lines used in this cross are not known. The detailed parentage of 2555 is:

Purdue 4946/Hadden, CI13488/3/Kawvale, CI08180/Vigo,
CI12220//Directour Journoc/4/Pioneer line W521

The single cross of Pioneer W3017/Pioneer W521 was made in the 1974 fall greenhouse cycle. Twenty hybrid seeds were planted in the fall of 1975 as a three foot F1 row in the Hutchinson, Kansas, breeding nursery. F2 seed harvested from this row was planted in the fall of 1976 as a bulk population at Hutchinson. Random heads were selected, threshed and bulked back together, and an F3 bulk population was planted at Windfall, Indiana. Again, random heads were selected, threshed and bulked back together, and an F4 bulk population was planted at Windfall. Two hundred heads were selected and individually threshed and planted in the fall of 1979 as F5 head rows in the breeding nursery at Windfall. One (designated A244-82) of the F5 head rows was selected and four heads were individually harvested before the row was harvested in bulk. The four heads were planted in the fall of 1980 as F6 head rows in the breeding nursery at Windfall. The bulk seed was entered into preliminary yield trials and later became coded W1060. W1060 was tested in preliminary yield trials through 1983. One of the four F6 head rows was selected in the summer of 1981

14A. Exhibit A. (con't.)

and was harvested in bulk and coded W1060B. W1060B has been tested in yield trials and for milling and baking quality since 1982. In 1984 an increase (0.14 acre) of W1060B in the F9 generation was grown and rogued for purity. Seed harvested from this increase became breeder's seed and was turned over to our parent seed personnel for further increase. Following the 1986 harvest, W1060B will be designated to be sold as Pioneer cultivar 2555.

2555 has shown uniformity and stability for all traits as described in Exhibit C (form LPGS-470-6) -- "Objective Description of Variety."

14B. Exhibit B. Novelty Statement

2555 is most similar to the Pioneer soft red winter wheat cultivar 2553. This is to be expected since the bulk that 2553 was selected from is genetically half of 2555. While 2555 resembles 2553 in some characteristics, there are a number of distinguishable differences between the two varieties. 2555 is 13.8% higher yielding than 2553 (Table 1). The test weight of 2553 averages 1.4 lbs/bu higher than 2555 (Table 1). On the average, 2555 will flower one day earlier than 2553 (Table 1). 2555 is more resistant to leaf rust and powdery mildew than 2553 (Table 1). The plant color of 2555 at booting stage is green while 2553 is blue green. 2555 has a purple coleoptile with seedling anthocyanin being present, while 2553 has a white coleoptile with seedling anthocyanin not present. Phenol reaction of 2555 is black, similar to Vermillion, while the phenol reaction of 2553 is light brown, similar to Seneca. Milling and baking characteristics of 2555 are also superior to those of 2553 (Table 2).

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN AND SEED DIVISION
BELTSVILLE, MARYLAND 20785

EXHIBIT C
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY

WHEAT (TRITICUM SPP.)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S) Pioneer Hi-Bred International, Inc.	FOR OFFICIAL USE ONLY
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) Plant Breeding Division Dept. of Cereal Seed Breeding P.O. Box 426 Windfall, Indiana 46076	PVPO NUMBER 8700011
	VARIETY NAME OR TEMPORARY DESIGNATION 2555

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g., 089 or 09) when number is either 99 or less or 9 or less.

1. KIND:

1 1 = COMMON 2 = DURUM 3 = EMMER 4 = SPELT 5 = POLISH 6 = POULARD 7 = CLUB

2. TYPE:

2 1 = SPRING 2 = WINTER 3 = OTHER (Specify) _____ 1 1 = SOFT 3 = OTHER (Specify) _____
2 = HARD

2 1 = WHITE 2 = RED 3 = OTHER (Specify) _____

3. SEASON - NUMBER OF DAYS FROM EMERGENCE TO:

2 2 8 FIRST FLOWERING 2 3 5 LAST FLOWERING

4. MATURITY (50% Flowering):

NO. OF DAYS EARLIER THAN 1 = ARTHUR 2 = SCOUT 3 = CHRIS
0 1 NO. OF DAYS LATER THAN 1 4 = LEMHI 5 = NUGAINES 6 = LEEDS

5. PLANT HEIGHT (From soil level to top of head):

0 9 5 CM. HIGH
 CM. TALLER THAN
0 4 CM. SHORTER THAN 1 1 = ARTHUR 2 = SCOUT 3 = CHRIS
4 = LEMHI 5 = NUGAINES 6 = LEEDS

6. PLANT COLOR AT BOOTING (See reverse):

2 1 = YELLOW GREEN 2 = GREEN 3 = BLUE GREEN

7. ANTHOR COLOR:

2 1 = YELLOW 2 = PURPLE

8. STEM:

1 Anthocyanin: 1 = ABSENT 2 = PRESENT 2 Waxy bloom: 1 = ABSENT 2 = PRESENT
1 Hairiness of last internode of rachis: 1 = ABSENT 2 = PRESENT 1 Internodes: 1 = HOLLOW 2 = SOLID
0 4 NO. OF NODES (Originating from node above ground) 2 2 CM. INTERNODE LENGTH BETWEEN FLAG LEAF AND LEAF BELOW

9. AURICLES:

1 Anthocyanin: 1 = ABSENT 2 = PRESENT 1 Hairiness: 1 = ABSENT 2 = PRESENT

10. LEAF:

2 Flag leaf at booting stage: 1 = ERECT 2 = RECURVED 1 Flag leaf: 1 = NOT TWISTED 2 = TWISTED
3 = OTHER (Specify): _____ 2 Waxy bloom of flag leaf sheath: 1 = ABSENT 2 = PRESENT
1 Hairs of first leaf sheath: 1 = ABSENT 2 = PRESENT
1 2 MM. LEAF WIDTH (First leaf below flag leaf) 1 9 CM. LEAF LENGTH (First leaf below flag leaf):

8700011

11. HEAD:

☐ 1 Density: 1 = LAX 2 = DENSE☐ 1 Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE
4 = OTHER (Specify) _____☐ 4 Awnedness: 1 = AWNLESS 2 = APICALLY AWNLETED 3 = AWNLETED 4 = AWNED☐ 1 Color at maturity: 1 = WHITE 2 = YELLOW 3 = PINK 4 = RED
5 = BROWN 6 = BLACK 7 = OTHER (Specify) _____☐ 0 ☐ 8 CM. LENGTH☐ 1 ☐ 2 MM. WIDTH

12. GLUMES AT MATURITY:

☐ 3 Length: 1 = SHORT (CA. 7 mm.) 2 = MEDIUM (CA. 8 mm.)
3 = LONG (CA. 9 mm.)☐ 3 Width: 1 = NARROW (CA. 3 mm.) 2 = MEDIUM (CA. 3.5 mm.)
3 = WIDE (CA. 4 mm.)☐ 2 Shoulder shape: 1 = WANTING 2 = OBLIQUE 3 = ROUNDED
4 = SQUARE 5 = ELEVATED 6 = APICULATE☐ 3 Beak: 1 = OBTUSE 2 = ACUTE 3 = ACUMINATE

13. COLEOPTILE COLOR:

☐ 3 1 = WHITE 2 = RED 3 = PURPLE

14. SEEDLING ANTHOCYANIN:

☐ 2 1 = ABSENT 2 = PRESENT

15. JUVENILE PLANT GROWTH HABIT:

☐ 2 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT

16. SEED:

☐ 1 Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL☐ 1 Cheek: 1 = ROUNDED 2 = ANGULAR☐ 1 Brush: 1 = SHORT 2 = MEDIUM 3 = LONG☐ 1 Brush: 1 = NOT COLLARED 2 = COLLARED☐ 5 Phenol reaction (See instructions): 1 = IVORY 2 = FAWN 3 = LT. BROWN
4 = BROWN 5 = BLACK☐ 3 Color: 1 = WHITE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER (Specify) _____☐ 0 ☐ 7 MM. LENGTH☐ 0 ☐ 3 MM. WIDTH☐ 3 ☐ 9 GM. PER 1000 SEEDS

17. SEED CREASE:

☐ 1 Width: 1 = 60% OR LESS OF KERNEL 'WINOKA'
2 = 80% OR LESS OF KERNEL 'CHRIS'
3 = NEARLY AS WIDE AS KERNEL 'LEMHI'☐ 1 Depth: 1 = 20% OR LESS OF KERNEL 'SCOUT'
2 = 35% OR LESS OF KERNEL 'CHRIS'
3 = 50% OR LESS OF KERNEL 'LEMHI'

18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

☐ 0 STEM RUST
(Races)☐ 0 LEAF RUST
(Races)☐ 0 STRIPE RUST
(Races)☐ 0 LOOSE SMUT☐ 1 POWDERY MILDEW☐ 0 BUNT☐ 2 OTHER (Specify) _____

Soil Borne Mosaic Virus

Spindle Streak Mosaic Virus

19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

☐ 0 SAWFLY☐ 0 APHID (Bydv.)☐ 0 GREEN BUG☐ 0 CEREAL LEAF BEETLE☐ OTHER (Specify) _____HESSIAN FLY
RACES:☐ 0 GP☐ 1 A☐ 1 B☐ 1 C☐ 1 D☐ 1 E☐ 0 F☐ 0 G

20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering	Pioneer Cultivar 2551	Seed size	Pioneer Cultivar 2553
Leaf size	Pioneer Cultivar 2551	Seed shape	Pioneer Cultivar 2553
Leaf color	Pioneer Cultivar 576	Coleoptile elongation	Pioneer Cultivar 2550
Leaf carriage	Pioneer Cultivar 2553	Seedling pigmentation	Pioneer Cultivar 2551

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

- (a) L.W. Briggie and L. P. Reitz, 1963, Classification of Triticum Species and Wheat Varieties Grown in the United States, Technical Bulletin 1278, United States Department of Agriculture.
- (b) W.E. Walls, 1965, A Standardized Phenol Method for Testing Wheat Seeds for Varietal Purity, contribution No. 28 to the handbook of seed testing prepared by the Association of Official Seed Analysts. (See attachment.)

LEAF COLOR: Nickerson's or any recognized color fan should be used to determine the leaf color of the described variety.

14D. Exhibit D. Additional Description of the Variety

Pioneer cultivar 2555 is a common soft red winter wheat, Triticum aestivum L.

Flowering date of 2555 is one day later than the variety Arthur and one day earlier than Pioneer cultivar 2550. At Windfall, Indiana, when seeded about October 1, average first flowering is May 26 or about 228 days after emergence. Last flowering normally averages about seven days later.

2555 has averaged 95 cm in height (Table 1), about 4 cm shorter than Arthur and the same height as Pioneer cultivar 2550.

The plant color of 2555 at booting stage is green, similar to Pioneer cultivar S76. The anther color of 2555 is purple.

Anthocyanin has not been present in the stems of 2555. However, a very light waxy bloom is present on the stems. Internodes of 2555 are hollow and at maturity stems are yellow and strong. Normally four stem nodes are present above ground and internode length between flag leaf and the leaf below is about 22 cm. The last internode of the rachis is free of hairiness.

Auricles of 2555 are lacking in anthocyanin and free of hairiness.

Flag leaves are generally recurved at booting and not twisted. Hairs are absent from the first leaf sheath. A light waxy bloom occurs on the flag leaf sheath. The first leaf below the flag leaf averages 12 mm wide and 19 cm long.

Spikes are generally mid-dense to lax, tapering, awned, and white to light yellow at maturity. Awns range from 2 to 6 cm in length. Spike width and length averages 12 mm and 8 cm, respectively. However, spike width and length are variable with plant population and level of production.

Glumes of 2555 are long, wide, glabrous, and generally with oblique shoulders. Beaks are acuminate and average 2 mm in length.

Coleoptile color is purple and seedling anthocyanin is present. Juvenile plant growth is semi-erect.

14D. Exhibit D. (con't.)

Kernels are red in color, ovate in shape, with rounded cheeks and a shallow crease. The brush is not collared and short in size. Kernels average 7 mm long and 3 mm wide and weigh 39 g per 1000.

Phenol reaction is black, similar to Vermillion.

2555 is moderately resistant to leaf rust (Puccinia recondita f. sp. tritici) races currently common in the soft red winter wheat region (Table 1). 2555 has not been tested for specific races of leaf rust, stem rust (P. graminis f. sp. tritici), stripe rust (P. striiformis), bunt (Tilletia foetida and T. caries), and loose smut (Ustilago tritici). While susceptible to powdery mildew (Erysiphe graminis f. tritici), the progression of the disease up the plant is quite slow (Table 1). 2555 has excellent resistance to both soil borne mosaic virus and spindle streak mosaic virus (Table 1).

2555 is susceptible to biotypes A, B, C, D, and E of Hessian fly and has not been tested to biotypes GP, F and G. Hessian fly tests were conducted by the Small Grain Insect Pests Resistance Group, USDA-ARS, Department of Entomology, Purdue University, Lafayette, Indiana. 2555 has not been tested for sawfly, BYDV, green bug, or cereal leaf beetle.

2555 has an outstanding yield record when compared with current soft red winter wheat cultivars (Table 1). Short plant height and good straw strength give 2555 excellent resistance to lodging (Table 1). 2555's level of winterhardiness is very similar to Pioneer cultivar 2553 (Table 1).

The milling and baking properties of 2555 are generally superior to most current soft red winter wheat cultivars (Table 2).

Table 1. Performance of Pioneer Cultivars 2555, 2551, 2550, 2553, and S76, and Purdue Cultivar Caldwell in Elite Yield Trials (1984 and 1985)*

Trait	Reps	Locs/Yrs	Cultivar					
			2555	2551	2550	2553	S76	Caldwell
Yield (Bu/A)	87	25	88.1	82.8	80.2	77.4	68.7	78.2
Test Weight (lbs/bu)	78	22	58.9	58.0	59.6	60.3	59.6	59.8
Days to 50% Flowering After 4/1	18	6	44.6	45.8	46.0	45.5	47.2	45.1
Height (cm)	57	17	95	93	95	95	98	97
Winterhardiness+	21	6	6.9	8.0	7.6	6.8	8.3	7.5
Spindle Streak Mosaic Virus+	3	1	9.0	8.6	7.1	9.0	9.0	6.4
Soil Borne Mosaic Virus+#	4	2	9.0	6.5	7.2	8.0	8.8	6.0
Leaf Rust+	21	7	6.4	8.0	6.3	4.3	3.4	7.8
Lodging Score+	6	1	8.2	6.9	6.2	9.0	7.8	7.2
Powdery Mildew+	9	2	6.8	7.3	4.9	2.4	3.0	5.8
<u>Rhizoctonia solani</u> +	3	1	5.0	4.7	3.7	4.3	5.3	3.7

*Elite yield trials were grown in eastern Kansas, Missouri, Illinois, Indiana, Ohio, and Michigan.

+Scale 1-9 where 9=excellent or resistant and 1=poor or 100% susceptible.

#Data collected at the University of Illinois SBMV nursery.

Table 2. Results of Quality Testing on 2555 (Pioneer Wheat Quality Lab)

Year/Sample	Flour Yield (%)	Break Flour (%)	Flour Protein (%)	AWRC (%)	Cookie Diam. (cm.)	PSI (%)
1982 Data (1 loc.)						
2555	73.1	41.8	8.5	52.1	19.1	38.9
Avg. Check (Standard)	69.4	35.2	9.0	53.5	18.6	37.3
Avg. 1983 Data (3 loc.)						
2555	73.5	44.0	7.0	52.3	19.7	32.7
2553	72.0	41.0	8.1	55.1	18.9	30.9
Caldwell	72.6	43.0	6.8	52.0	19.4	29.7
Avg. Check	71.5	40.2	7.8	53.9	18.8	26.8
Avg. 1984 Data (3 loc.)						
2555	71.7	40.3	8.4	51.7	19.3	16.1
2553	70.2	37.2	8.9	53.0	18.9	12.7
Caldwell	72.5	40.3	8.0	52.9	19.2	14.0
Avg. Check	70.4	36.7	8.5	54.3	18.8	12.6
Avg. 1985 Data (10 comparisons)						
2555	74.6	41.2	7.5	53.0	----	34.6
Caldwell	73.8	39.6	7.6	53.4	----	31.4
Avg. Check	72.6	37.1	7.8	55.3	----	30.8

NOTES: Locations tested include: St. Joseph, IL; Ft. Branch and Windfall, IN; Blissfield and Lake Odessa, MI.

Check samples include various combinations of: 2550, 2553, Abe, Augusta, Caldwell, Frankenmuth, S76, Titan, and Tyler.

Methods: Milling - Brabender Quadrumat Sr. Mill

Protein - NIR, Dickey-john GAC III

AWRC - Micro method on milled flour

Cookie diameter - Total diameter of two cookies (1985 data not available)

PSI - AB grinder, sieve shaker (1984 data represents coarser grinder setting)

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14E. Exhibit E, Statement of the Basis of Applicant's Ownership

Pioneer Hi-Bred International, Inc., Plant Breeding Division, believes it is the sole, original and first breeder of the 2555 variety of soft red winter wheat for which it solicits a certification of protection.